

SELECTION & SPECIFICATION DATA

Generic Type	Two package (vehicle plus zinc dust) silicone zinc primer
Designation	This is a Carboline Specialty Product Minimum order quantities and special pricing will apply in North America. Contact your Carboline Sales Representative for more details.
Description	Corrosion resistant primer used over carbon steel in areas exposed to extreme temperatures. Suitable for service from 400°F - 1200°F. Thermaline 4765 may be used in high temperature service under insulation when top coated with Thermaline 4700.
Features	• Zinc rich formulation provides outstanding corrosion resistance • Air dries to touch at ambient temperatures • Is resistant to severe thermal shock • Provides outstanding long-term performance and appearance when topcoated with Thermaline Silicone Finishes
Color	0700 (Grey) only
Finish	Flat
Dry Film Thickness	2 mils (51 microns) per coat (4 wet mils)
Solids Content	By Volume 45% +/- 2%
Theoretical Coverage Rate	722 ft²/gal at 1.0 mils (17.7 m²/l at 25 microns) 361 ft²/gal at 2.0 mils (8.9 m²/l at 50 microns) Allow for loss in mixing and application.
VOC Values	Thinner 235 : 13 oz/gal (10%): 4.3 lbs/gal (515) As Supplied : 4.0 lbs/gal (480 g/l)
Dry Temp. Resistance	Continuous: 1000°F (538°C) Discoloration is observed above 600°F (316 °C)

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Steel	SSPC-SP 10 with a 1.5-2.5 mils (37-65 microns) surface profile.

MIXING & THINNING

Mixing | Power mix base, then combine and power mix as follows. Pour zinc dust very slowly into premixed base with continuous agitation. Mix until free of lumps. Pour mixture through a 30-mesh screen. DO NOT MIX PARTIAL KITS. Tip: Sifting zinc through a window screen will aid in the mixing process by breaking up or catching dry zinc lumps.

1.2-Gal Kit
Part A: 1.114 gal
Zinc Filler: 4.9 lbs

3.57-Gal Kit
Part A: 3.32 gal
Zinc Filler: 14.6 lbs

Thinning | Normally not required. May be thinned up to 12.8 oz./gal. (10%) with Thinner #235 for "hot" applications exceeding 150°F(66°C) up to 300°F(149°C). Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life | 8 hours

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Spray Application (General) | The following spray equipment has been found suitable for application of this material. Conventional spray application is preferred.

Conventional Spray | Use DeVilbiss P-MBC, E-needle and tip, and a 704 air cap or equal. Use adequate air volume for proper equipment operation. Hold gun 10-12" from the surface and at right angles. Overlap each pass 50%. Apply 4.0 wet mils to obtain desired dry film.

Brush & Roller (General) | Recommended for touch up of small areas or where spray application is not permitted. Avoid excessive re-brushing or re-rolling.

Brush | Use a medium bristle brush.

Roller | Use a solvent resistant, short-nap mohair roller cover

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	55°F (13°C)	40°F (4°C)	40°F (4°C)	0%
Maximum	95°F (35°C)	300°F (149°C)	120°F (49°C)	95%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions. See thinning.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Topcoat w/ Other Finishes	Firm Set
77°F (25°C)	1 Hour	6 Hours	8 Hours

These times are based on a 2.0 mil (50 micron) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze.

Note: Thermaline 4765 will not reach its ultimate film properties until fully heat cured for two hours at 400°F. After a 2 hour flash-off @75°F(24°C), raise temperature slowly to 350-450°F(176-232°C) and hold for 2 hours.

CLEANUP & SAFETY

Cleanup	Use Thinner #2. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	Read and follow all caution statements on this Product Data Sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
Ventilation	When used in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.
Caution	This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 12 months at 77°F (24°C) Part B: 24 months at 77°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40°F – 100°F (4.4°C – 37.8°C) 0 – 85% humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	1.2 Gallon Kit Part A = 13 lbs. Zinc Dust = 6 lbs. 3.57 Gallon Kit Part A = 36 lbs. Zinc Dust = 15 lbs.
Flash Point (Setaflash)	80°F (26°C)

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.